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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/552,997	04/19/2000	Jeremy B. Gaylord	5038-42	4029

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EXAMINER	
JERABEK, KELLY L	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/552,997	GAYLORD, JEREMY B.	
	Examiner	Art Unit	
	Kelly L. Jerabek	2612	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 August 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *1-15*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

WENDY R. GARBER
PRIMARY PATENT EXAMINER
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Continuation of 5. does NOT place the application in condition for allowance because: 1) Applicant's argument states that according to the Examiner, Wang's primary open loop rate control (202) computes the recited bandwidth constrained frame rate. The Examiner respectfully disagrees. The Examiner's Final Rejection states that Wang shows that a Quantization parameter (Q) is adjusted for each frame to achieve a desired size of encoded frame and that the primary open loop rate control (202) determines a target size for the current frame so that exactly the available bandwidth is consumed(final rejection: page 8). This relates the frame size of an imager and the bandwidth of a link.

2) Applicant's argument also states that the Wang reference discloses adjusting, not computing, its frame rate depending upon the cumulative amount of the surplus or deficit bandwidth resulting from the previously endoded frames. The Examiner respectfully disagrees. The Wang reference does indeed disclose adjusting the frame rate based on the cumulative bandwidth balance (col. 15, lines 18-36). However, the Wang reference clearly shows that the frame rate controller (120) adjusts the frame rate differently base on maximum and minimum threshold values (col. 15, lines 37-49; table A). Therefore, since the frame rate is adjusted to different amounts (20,10,5,2.5) it can be seen that a frame rate is computed. In order to adjust the frame rate, some computation must be done in order to determine the new frame rate (eg. in order to obtain the values 20, 10, 5, and 2.5 some computation must be done). The new frame rate is then selected based on an integer value (n) (col. 15, lines 45-49). Thus, the Wang reference discloses computing a bandwidth constrained frame rate from a frame size of an imager and a bandwidth of a link.

3) Applicant's argument states that Wang's maximum and minimum thresholds are not requested from an imager and that the maximum and minimum thresholds are not rates of video frames but are percentages of allowable bandwidth deficits and surpluses. The Examiner agrees with this statement. However, the Examiner still believes that the Wang reference reads on the claims as written. The Examiner is interpreting the portion of claim 1 reading "determining whether the computed bandwidth constrained frame rate is smaller than a requested rate of video frames from the imager" as the following. The phrase "from the imager" as written may be read applied to two different parts of this statement. First it can be read that the requested rate comes from the imager. Secondly, it can be read that the video frames come from the imager. The Examiner is reading the claim as meaning that only the video frames come from the imager and that the requested rate does not need to come from the imager. Therefore, the maximum and minimum thresholds do not need to be requested from an imager in order to read on the claim. Wang discloses a frame rate controller (120) that controls te frame rate of an encoded video signal according to flow diagram (800). First, the frame rate controller (120) retrieves the cumulative bandwidth balance from the Q adjuster (116) (col. 15, lines 18-22). The cumulative bandwidth balance represents a cumulative surplus or deficit fo bandwidth resulting from previously encoded frames of the motion video signal (col. 15, lines 22-26). The frame rate of the previously encoded frames represents the frame rate that the encoder (100) is currently using (this value is initially 20 frames per second: col. 15, lines 32-36). Therefore, the Examiner is reading this as the requested rate of video frames from the imager because the encoded frames are certainly coming from an imager and since the encoder (100) is currently using a frame rate (20 fps) corresponding to these encoded frames, the encoder (100) is requesting the video frames from the imager at the current frame rate (20 fps). Thus, the cumulative bandwidth balance represents the current frame rate requested by the encoder (100) because the cumulative bandwidth balance changes when the current frame rate changes. Wang then states that the frame rate controller (120) compares the cumulative bandwidth balance is compared to a maximum threshold which is periodically adjusted depending on the current frame rate which the encoder (100) is encoding the frames (20 fps) (col. 15, lines 26-36). If the frame rate controller (120) determines that the cumulative bandwidth balance is indicates a bandwidth deficit greater than the maximum threshold, the frame rate controller (120) reduces the frame rate (col. 15, lines 37-49). Conversely, if the frame rate controller (120) determines that the cumulative bandwidth balance is indicates a bandwidth deficit is not greater than the maximum threshold, the frame rate controller (120) compares the cumulative bandwidth balance to a minimum threshold and if the frame rate controller (120) determines that the bandwidth deficit is less than the minimum threshold the frame rate controller increases the frame rate (120) (col. 15, lines 50-63). Therefore, it can be seen that when the bandwidth balance indicates a bandwidth deficit greather than maximum threshold, the frame rate is reduced to a frame rate (10; bandwidth constrained frame rate) that is smaller than the current frame rate (20; the requested rate of video frames from the imager). Tthe Wang reference reads on the claim because when the bandwidth balance indicates a bandwidth deficit greather than a maximum threshold the frame rate is always reduced. Thus, the frame rate that the encoder (100) is reduced to (computed bandwidth constrained frame rate) is always smaller than the current frame rate (requested rate of video frames) whenever the maximum threshold is exceeded.

4) Applicant's argument further states that the combination of the Wang and Ackland references would not have provided motivation for using an integration time, or frame rate, to reduce noise. The Examiner respectfully disagrees. The Examiner would like to note that the Ackland reference was brought in for the sole purpose of showing the relationship between integration time of an imager and frame rate. The Wang reference discloses a video signal endcoder (100) for encoding motion video signals for transmission through a computer network such as computer network (1104, fig. 11) (col. 18, lines 57-67). Server computer (1102) includes video signal acquisition circuitry (1270) which can be a video camera. Images captured by the video signal acquisition circuitry (1270) serve as the source video images (1240) for the encoder (col. 19, lines 52-59). Therefore, it is obvious that the video signal acquisition circuitry (1270) will have an integration time for captuing the images. The encoder (100) includes all of the features described in the final rejection corresponding to claims 1, 6, and 11. However, the encoder of the Wang reference never explicitly discloses that the integration time is determined from the computed bandwidth constrained frame rate. Ackland discloses an active pixel sensor imaging system (fig. 1). The active pixel sensor collects generated charge carriers during the integration time (col. 4, lines 29-34). The integration time is determined by the frame rate (col. 4, lines 34-44). Therefore, it would have been obvious for one skilled in the art to have been motivated to include the concept of determining an integration time for an imager based on the current frame rate as taught in Ackland in the video signal acquisition circuitry that provides images to the encoder disclosed by Wang. Doing so would provide a means for determining the integration time of an imager providing images based on the frame rate that the image is updated at (Ackland: col. 4, lines 29-44).